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Spaceport News

John F. Kennedy Space Center - Americaís gateway to the universe

http://www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html

Discovery rollout marks exciting milestone for July launch

With Space Shuttle Discovery's 4.2-mile journey from the Vehicle Assembly Building to Launch Pad 39B complete, NASA is one step closer to the STS-121 mission, targeted for launch no earlier than July 1.

Mounted on the mobile launcher platform, Discovery emerged from the assembly building at 12:45 p.m. May 19 before arriving at the launch pad early that evening. This mission will continue the evaluation of flight safety procedures, including shuttle inspection and repair techniques, as well as deliver more supplies for future International Space Station expansion.

The STS-121 crew is scheduled to spend three days in mid-June participating in the terminal

(See ROLLOUT, Page 4)

AMID THE glow of lights from the fixed and rotating service structures, Space Shuttle Discovery rests on the hardstand of Launch Pad 39B after completing the 4.2-mile journey from the Vehicle Assembly Building. Discovery is scheduled to launch no earlier than July 1.

NASA, NOAA partner for GOES-N weather satellite

At press time, the Geostationary Operational Environmental Satellite-N (GOES-N) launch was scheduled for May 24 from Launch Complex 37 at the Cape Canaveral Air Force Station.

The multimission GOES series N-P will be a vital contributor to weather, solar and space operations, and science. NASA and the National Oceanic and Atmospheric Administration (NOAA) are actively engaged in a cooperative program to expand the existing GOES system with the launch of the GOES series of satellites.

NOAA's goal is to have two GOES satellites — known as GOES-East and GOES-West — operating at all times. Combined, the two satellites provide continuous data while covering 60 percent of the Earth's surface, including the continental United States.

The new series of satellites, which begins with the GOES-N spacecraft, is scheduled to gradually replace the aging, current geosynchronous satellites and employs improved on-board technology for more accurate weather prediction. Having an in-orbit replacement satellite "on station storage" means the GOES constellation recovery time can be measured in increments of days, rather than the years it would take to prepare and launch a satellite stored on the Earth.

That time difference would be especially crucial if a GOES satellite failed during the peak of the hurricane season. The GOES N-P series will aid activities ranging from severe storm warnings to resource management and advances in science.

GOES N-P data will add to the global community of knowledge, embracing many civil and government environmental forecasting organizations that work to benefit people everywhere.

A highly advanced attitude control system fosters enhanced instrument performance for improved weather service quality. NASA and NOAA have set a high standard of accuracy for GOES N-P, including data pixel location to two kilometers from geosynchronous orbit. Visit **http://www.nasa.gov** for information.

THE GOES-N spacecraft before mating to the second stage of the Boeing Delta IV rocket.

The Kennedy Update

Jim Kennedy
Center Director

Greetings, friends! What an exciting couple of weeks it's been around the space center. We've accomplished three major milestones with space shuttle and International Space Station processing that keeps Discovery on track for our July launch window.

And at the time this column went to print, the GOES-N satellite was set to launch May 24 to increase our knowledge of weather and, most importantly to Floridians, hurricanes.

I want to congratulate our shuttle and station teams for reaching their milestones during the past two weeks. First, Discovery was rolled over from its Orbiter Processing Facility to the Vehicle Assembly Building May 12. It is always a great day when an orbiter leaves its OPF to complete the first leg of its journey to space.

Then one week later, after it was mated to its external tank and solid rocket boosters, the space shuttle rolled out to pad 39B during a spectacular day that made the moment literally magical. These two milestones were no easy feats, but our team made it look routine.

Congratulations to the shuttle team and I'm proud of your accomplishment.

During the week between rollover and rollout, another significant milestone was accomplished by our International Space Station processing team that was equivalent to the shuttle milestones. On May 17, Discovery's cargo was delivered to the pad.

This includes the Italian-built logistics module Leonardo, which will carry 11 large racks filled with food, clothing, spare parts and research equipment to the International Space Station.

Along with it is an Oxygen Generation System, which can provide enough oxygen each day to support a six-member crew. These were just two of the more notable items that will travel with STS-121's seven-member crew to the space station in July.

> "I know safety will remain our number-one priority and I can't wait to celebrate launch day with the entire center."

I know both the space shuttle and space station processing teams will be kicking it into high gear as we head toward July. I know safety will remain our number-one priority and I can't wait to celebrate launch day with the entire center.

I also want to congratulate the GOES-N team for their hard work. While not directly a KSC Launch Services Program launch, I know many people at KSC and the Cape supported the launch and it's appreciated. Anything that can help us learn more about our planet is aces in my book.

Finally, this weekend is more than a three-day weekend as our nation remembers our national heroes on Memorial Day.

I know many KSC people have their roots in military service and most know people who died in the line of duty defending our nation.

I respect our military and everything it stands for, and I will definitely take a few moments in my own way to thank them all on Monday. I hope you do the same.

Have a great week everyone and see you around the center!

Consul General at KSC for Asian American and Pacific Islander event

Kennedy Space Center will host a celebration honoring the heritage of Asian Americans and Pacific Islanders (AAPI) from noon to 1:30 p.m. May 30 in the Training Auditorium, featuring the Honorable Masakasu Toshikage, Consul General of Japan.

With the theme "Celebrating Decades of Pride, Partnerships and Progress," the event will include cultural performances, art displays, a fashion show and light refreshments. NASA is recognizing the month of May as Asian American and Pacific Islander Heritage Month.

The celebration is organized by the United Space Alliance Office of Diversity and Compliance, the Solid Rocket Booster Program, the Boeing Asian American Professional Association, JAXA and the KSC AAPI Working Group.

With supervisor permission, employees can enjoy this celebration of the contributions made by Asian Americans and Pacific Islanders. Contact Diana Navas at *diana.s.navas@usa-spaceops.com* or Paula Nosca at *paula.noscalay@boeing.ksc.nasa.gov* for information.

The Asian American Heritage Council from Central Florida recently honored KSC during its Asian Gala celebration. This year, the Filipino-American Association of Brevard County nominated Kennedy for the "Leadership In Diversity" corporate award, which was accepted on the center's behalf by Tara Gillam, manager of the Diversity and Equal Opportunity Office.

Leaders of ethnic groups in Central Florida representing the Philippines, India, China, Korea, Vietnam, Indonesia, Laos and Malaysia organized the council when National Asian Pacific American Heritage Month was proclaimed in 1980. The council awarded more than $7,000 in college scholarship grants in 2005.

May NASA employees of the month

The May NASA employees of the month, standing in the back row from left, include Richard Nielsen, Constellation Project Office; Corey Diebler, Safety and Mission Assurance; Jan Hollar, Information Technology and Communications Services; and Damian Ludwiczak, Launch Services Program. Sitting in the front row from left are Richard Smith, Engineering Development; Chris Pino, Procurement Office; Diane Bent, Center Operations; Laura Bales, Payload Processing.

Leaders focus on KSC's future role in space exploration

By Linda Herridge
Staff Writer

Highlights of the past year and work under way to support the nation's Vision for Space Exploration were the main topics Kennedy Space Center Director Jim Kennedy discussed at the annual Community Leaders Breakfast on May 12 at the Debus Conference Center, located at the KSC Visitor Complex.

Participants included educators, public dignitaries, state and local government representatives, business executives, heads of community organizations, leaders in education, members of the NASA Alumni League, NASA, U.S. Air Force and contractor senior management and invited media representatives.

"You are all an important part of the NASA Family," Kennedy said. "It's all about the people."

He said there will be a need for more non-traditional work at the center as NASA transitions from the space shuttle to the new exploration vehicles. Kennedy said this work could be in the areas of Crew Exploration Vehicle final assembly, transportation service or other exploration opportunities.

Kennedy spoke about new areas of commercialization, including the GlobalFlyer and Zero-G vehicles, and spinoffs of NASA technology.

He also addressed the need for more students graduating with degrees in the engineering and science fields. "Currently we, as a nation, graduate only 6 percent of the total engineering and science students in the world," Kennedy said. "We have a charter to inspire the next generation of explorers."

Overviews were also presented by Rita Willcoxon, deputy director of Shuttle Processing; Russell Romanella, director of International Space Station/Payload Processing; Stephen Francois, manager of the Launch Services Program; and Pepper Phillips, deputy director of the Constellation Project Office.

"We have a challenging, exciting and difficult time ahead of us as we plan for the transition to the new Crew Exploration Vehicle program," Willcoxon said during her overview of processing highlights for mission STS-121.

CENTER DIRECTOR Jim Kennedy talks to educators, state and local government representatives and other dignitaries at the Community Leaders Breakfast held May 12 at the Debus Conference Center.

Romanella showcased great moments in processing station elements in the Space Station Processing Facility and noted that exploration in the future is going to be an international effort. "We're connected to exploration," he said.

After viewing a video highlighting the Launch Services Program processing and launch activities, Francois said: "We have a team that really enjoys what they do. We're part of this community."

Phillips said that KSC will play a big role in the future of space exploration. "We have a bold mission," he said.

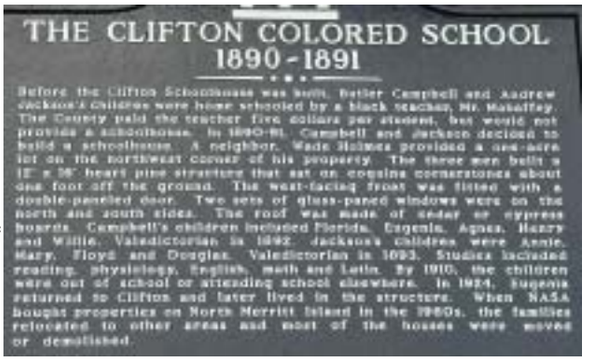
KSC, Brevard partner to preserve historic school

Kennedy Space Center and Brevard County recently took a major step in preserving the Clifton School, a 116-year-old schoolhouse used by the children of early black homesteaders in North Brevard.

Last month, KSC Director Jim Kennedy and Chairwoman of the Brevard County Board of Commissioners Helen Voltz met at the school's site to signify its transfer of ownership from NASA to Brevard County.

The school, built in 1890, was discovered in 2003 in a remote wooded area north of KSC. Under a Space Act Agreement, NASA and Brevard County formed a partnership to have the remnants of the school removed for reconstruction.

Upon completion, the restored school will become part of the Heritage Park Complex at the Chain of Lakes Project in Titusville. For more information on the Clifton School on the Web, visit: **www.pritchardhouse.com**.



THIS PLAQUE will be placed at the Clifton School when the restored building becomes part of the Heritage Park Complex in Titusville.

THE CLIFTON Colored School was built in 1890 on North Merritt Island. The 12 foot by 16 foot pine structure was built by Butler Campbell, Andrew Jackson and Wade Holmes, who provided the one-acre lot.

Space Shuttle Discovery rolls out t

ROLLOUT . . .

(Continued from Page 1)

countdown demonstration test. Held prior to every space shuttle mission, the test allows the astronauts and ground support teams to practice pre-launch activities.

Steve Lindsey will command the mission, flying with Pilot Mark Kelly, spacewalkers Mike Fossum and Piers Sellers and Mission Specialists Stephanie Wilson and Lisa Nowak. European Space Agency astronaut Thomas Reiter is also part of the crew and will remain on the station for several months.

Reiter's arrival will give the station its first three-person crew since May 4, 2003.

IN THE Space Station Processing Facility (above), employees attach an overhead crane to the multi-purpose logistics module Leonardo before the module is moved to the payload transportation canister.

KENNEDY SPACE Center employees proudly watch Space Shuttle Discovery roll ov the Vehicle Assembly Building on May 12. Below, members of the Shuttle Processi into the VAB.

THE PAYLOAD canister containing Leonardo (below) and other payloads for STS-121 moves past the VAB on its way to Launch Pad 39B.

to pad for July launch

ver from Orbiter Processing Facility bay 3 to
ng team accompany the orbiter on its move

DISCOVERY TURNS the corner on the crawlerway leading to Launch Pad 39B.

FROM HIGH bay 3 of the Vehicle Assembly Building (left), Discovery begins its slow 4.2-mile journey via the crawlerway to Launch Pad 39B. First motion was at 12:45 p.m. on May 19.
Above, Space Shuttle Program Director Wayne Hale talks to reporters about the rollout of Discovery (in background).

Wendt encourages employees to 'Think Outside the Box'

By Linda Herridge
Staff Writer

Former launch pad leader Guenter Wendt encouraged employees to "think outside the box" during a presentation on May 22 at the Kennedy Space Center Operations and Checkout Building mission briefing room.

Wendt, author of the autobiography "The Unbroken Chain," came to share his experiences as pad leader during the Mercury, Gemini, Apollo, Skylab and Apollo Soyuz programs, and then as head of flight crew safety in the Space Shuttle Program.

Using humor and anecdotes — including an encounter with a cranky chimpanzee in Hangar S and designing the slide-wire system for emergency egress from the launch pads — Wendt talked about the successes, problems and lessons learned during the early years of the space program.

Wendt told workers there are three things they should always keep in mind. The first is to establish credibility. "Don't try to fake it," Wendt said. "Always have the facts to back up your statements."

Second is to learn from your mistakes. "Admit it when you are wrong and try not to repeat the same mistake," he said. "And third, take time to think outside the box."

By that, Wendt means that everyone should take time to play the "what if" game. When a new idea or way to do something is suggested, don't think it can't be done just because it's never been done before, Wendt said. "And never take things for granted," he added.

He encouraged managers to give workers the time to sit back and think, because that's when a way to do something better, faster or cheaper will come to light.

Wendt said one of his responsibilities was to escort VIPs at the launch pads and other areas. His most memorable experience was giving a tour of a T-38 jet to a blind child.

He also described giving a tour of the launch pad to a group of KSC janitors. During one of his speaking engagements many years later, the son of one of the janitors told him his father still talks about seeing the Apollo 11 launch vehicle on the pad prior to its trip to the moon.

Wendt said the space program can make significant contributions in two areas in the future. First is to develop a fusion process that uses Helium 3, which could be used to put a power station on the moon. Second is to come up with a system that transmits electricity without using wires.

GUENTER WENDT, former pad leader for the Mercury, Gemini, Apollo, Skylab and Apollo Soyuz programs before being named head of flight crew safety for the Space Shuttle Program, spoke to employees at the Operations and Checkout Building mission briefing room on May 22.

Following the presentation, Russell Romanella, director of the International Space Station/Payload Processing directorate, presented Wendt with a plaque in appreciation of coming to speak with employees.

In-office exercise equipment helps develop healthy lifestyle

CENTER DIRECTOR Jim Kennedy begins his exercise regimen with help from Debra Orringer, KSC Fitness Centers supervisor.

By Jennifer Wolfinger
Staff Writer

Kennedy Space Center Director Jim Kennedy began an exercise regimen on May 8 in which he'll burn calories without even leaving his office.

"I'm entering a new phase in my life, and I want it to be a healthy phase," he said.

Dr. Irene Long, KSC's chief medical officer, decided a pedal exerciser would be the perfect fitness tool to accommodate Kennedy's unpredictable schedule. The portable equipment can work the upper or lower body, and should be used for 20 to 30 minutes, three times a week.

"It is difficult for all of us to fit daily exercise into our busy work and personal schedules. So if the center director, one of the busiest people at KSC, can use this type of in-office exercise equipment to find a few moments each day to stay fit, it will be an inspiration to us all."

Kennedy pointed out that if President Bush can remain active, then Kennedy can't use his demanding schedule as an excuse not to be dedicated to his wellness.

"As an agency, we value the health of our work force because it improves quality of life and increases life expectancy. We've all got a tough job, but health should be a priority," Kennedy said.

He attributed his motivation to witnessing his father's health problems, such as high cholesterol.

"When I lost my dad, he had all the same symptoms I have now. He made a commitment to become healthy, but his clock ran out," Kennedy said. He also needs to be in motorcycle-riding shape for the cross-country trip he'll take with his wife, Bernadette, following his retirement in 2007.

According to Debra Orringer, KSC Fitness Centers supervisor, it's never too late to become healthy. "It's a lifestyle change, and eventually becomes a habit," she explained.

Orringer showed Kennedy how to use the pedal exerciser, evaluated his overall health and offered motivational tips. To find out about fitness opportunities at KSC, visit: **http://fitness.ksc.nasa.gov**.

Remembering Our Heritage

40 years ago: Countdown to the first soft landing on the moon

Surveyor 1 launched on Memorial Day 1966

By Kay Grinter
Reference Librarian

On Memorial Day, May 30, 1966, NASA's Unmanned Launch Operations team members were not at home with their families. They were in the blockhouse at Pad 36A on Cape Kennedy, preparing to launch Surveyor 1 to the moon. Its mission was to make NASA's first soft landing and collect data on the lunar surface to support the Apollo landings, only a few years away.

As head of the electrical section, NASA alumnus Terry Terhune was present in the blockhouse. "All system monitoring was done by eyeball, not computers. When we got into the count, the room was silent," he recalls.

"You would need an axe to cut the tension. We were remembering recent 'incidents' in which rockets and pads had been damaged.

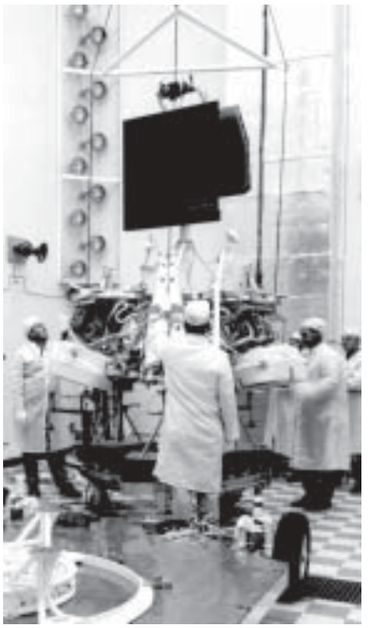
"As we were counting the final seconds, the sequencer seemed to get louder and louder, like a drumbeat in my mind until it reached a crescendo at release and liftoff and the launch team members let their breaths out at the same time. The joy we felt was incredible."

The inconvenience of having to work on a holiday was worthwhile, though, as this first countdown for the Atlas-Centaur (AC-10) proceeded smoothly, with no holds required, and Surveyor 1 began its 63-hour journey.

The Hughes spacecraft had a tubular aluminum frame and was 10 feet high and 14 feet across with its legs extended. It carried a survey television system and instrumentation to measure lunar surface bearing strength, temperatures and radar reflectivity.

Surveyor 1 glided gently onto the moon on June 2 in the Ocean of Storms and began transmitting clear and detailed television pictures to the Jet Propulsion Laboratory's Deep Space Facilities in Goldstone, Calif.

The lunar terrain, or "lurain," at the landing site appeared to be composed of a fine sand with rougher material throughout, about 3 feet deep with a harder layer underneath. It had a dynamic bearing strength of 6 to 10 pounds per square inch. It was heavy enough for man to walk on and for a properly designed spacecraft to land on.



SURVEYOR 1 launched on May 30, 1966, at Pad 36A (left). Above, employees process Surveyor 1 for launch. The mission was NASA's first soft landing on the moon.

Surveyor 1 completed its primary mission July 13, after transmitting a total of 11,150 pictures. Communications with the spacecraft were reestablished periodically through January 1967.

Astronaut shares details of space station duty

John Phillips, a NASA astronaut and Expedition 11 crew member, talked to employees May 9 in the Operations and Checkout Building Mission Briefing Room about his stint on the International Space Station. He served as the NASA science officer and flight engineer on ISS Expedition 11, which launched from the Baikonur Cosmodrome in Kazakhstan on April 14, 2005.

During his stay, Phillips worked with scientific experiments, performed a spacewalk in a Russian spacesuit and hosted the return-to-flight visit of Space Shuttle Discovery for the STS-114 mission. He also flew on STS-100 aboard Endeavour in 2001.

AT LEFT, John Phillips, an Expedition 11 crew member (standing left) is introduced by Center Director Jim Kennedy before a presentation to employees at the Operations and Checkout Building Mission Briefing Room.

ABOVE, KENNEDY presents Phillips with a token of appreciation for his visit.

Hurricane Awareness Training signifies time to prepare

By Jennifer Wolfinger
Staff Writer

Those six typically hurricane-free months sure fly by quickly. June, the official start to hurricane season, is approaching, so Kennedy Space Center's hurricane coordinators and alternates attended Hurricane Awareness Training on May 10 at the Training Auditorium.

Center Director Jim Kennedy explained why he thinks the work force is successful in battling severe weather.

"We stay synced up to work through the problems," he said. "We will survive again, and it will be because we banned together as a team."

Calvin Burch, chief of the KSC Protective Services and Safeguards Office, thanked the workers for their dedication.

"I feel secure and appreciate all you do to protect us," he said.

Emergency Preparedness Manager John Cosat said people often don't understand weather reports on television because the reporters don't have enough time to explain them. But the event's guest speaker would cure that, Cosat said as he introduced Tom Terry, a meteorologist from Channel 9 WFTV in Orlando.

Terry shared facts about previous hurricane seasons. There were 28 named storms last year, breaking the previous record of 21 set in 1933. This included 15 hurricanes in which seven were major (category 3 or higher). Terry said meteorologists are trying to prevent future problems, such as tremendous evacuation traffic, with early warnings.

"The previous busy period was 1944 to 1969. Presently, we're in another busy period, which began in 1995. This year, we estimate 17 to 19 named storms, with nine to 11 hurricanes," he warned.

Shuttle Launch Weather Officer Kathy Winters from the 45th Weather Squadron stressed that everyone should be aware of the uncertainty of hurricanes. She also explained the typical process KSC administrators use to make important severe weather decisions. They consider storm track, speed, size, intensity and genesis when deciding how to react, she said.

"We really try to get you a clear and objective message, and make announcements specific to the threat in order to prepare," Winters said.

Cosat explained the different notification methods and announced an upcoming hurricane simulation exercise.

"We tell you what to do, not how to do it; that's up to each organization," he said about accomplishing the various preparation tasks.

He suggested reviewing KSC's plan by searching for "Hurricane Preparation and Recovery" or document number JDP-KSC-P-3006 at: **http://tdsearch.ksc.nasa.gov**.

The training is mandatory for all hurricane team members. It will replay on Channel 60 during all three shifts throughout the 2006 hurricane season, which ends Nov. 30. The *KSC Daily News* will post the airtimes.

TOM TERRY, a meteorologist from WFTV in Orlando, talks to employees about hurricanes.

Employees can sample good times, food at BEST barbecue

Once again, the Black Employee Strategy Team (BEST) cooks are firing up the grills and all Kennedy Space Center and Cape Canaveral Air Force Station employees and students are invited, along with off-center guests.

Don't miss the fun from 3 to 6 p.m. June 23 at KARS Park 1. Dinner is served from 3:15 to 5 p.m. The event includes karaoke, a disc jockey, volleyball, contests and prizes.

The BEST Barbecue will be held June 23 at KARS Park 1.

Attendees can also sample entrees in the Homemade Dessert Contest. Contact Truemilla Johnson (867-2307) or Delores Abraham (867-9276) to sign up for the contest.

BEST is organized to foster positive employee relations at KSC and to welcome the summer students and faculty.

Tickets are $9 each and can be purchased until June 9. Ticket distributors include: Maggie Forbes, Headquarters room 2223C, (867-3305); Carlos Daniels, Launch Control Center room USK-662, (867-3025); Shondrae Bain, Operations and Checkout room 2147E3, (867-1522); Linnette Daniels, CCAFS Hangar N, (853-9261); and Willie Walker, Operations Support Building 1 room 1307, (861-3249). For information, contact Stacie Smith at 867-5298.

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Spaceport News

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